

Advertising Per-node Admin Tags in IS-IS

draft-psarkar-isis-node-admin-tag-01

Pushpasis Sarkar psarkar@juniper.net

Shraddha Hegde shraddha@juniper.net

Harish Raghuveer hraghuveer@juniper.net

Hannes Gredler hannes@juniper.net

Stephane Litkowski stephane.litkowski@orange.com

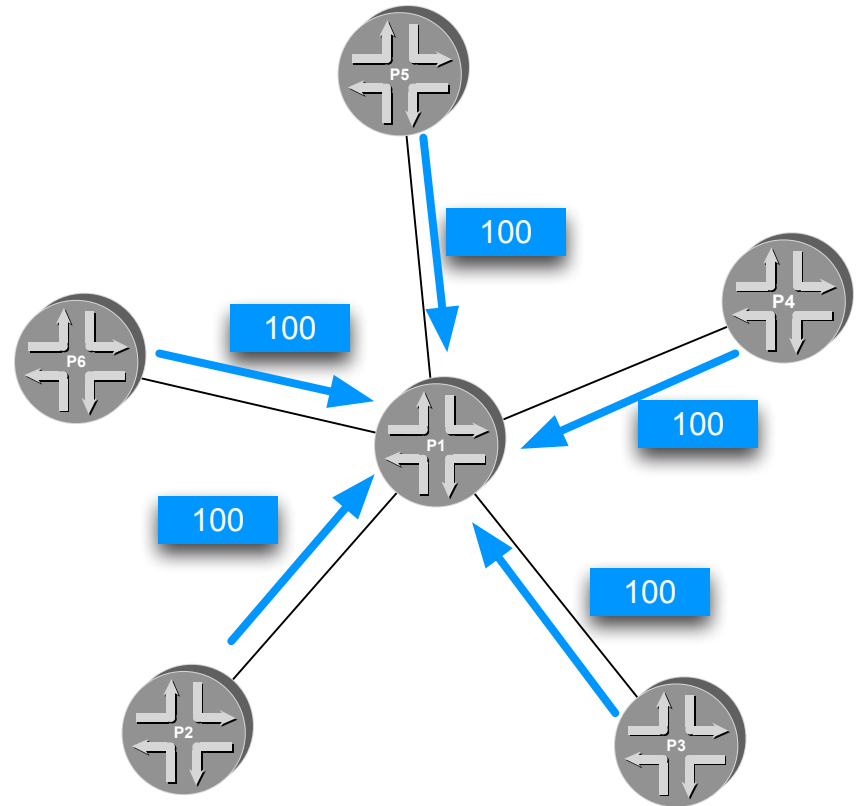
Bruno Decraene bruno.decraene@orange.com

Rationale

- **Node color** is used for describing path constraints
 - IP paths
 - MPLS paths
- there is a category of path constraints which requires that a certain path **should** or **should not** be routed over a **node with specific properties**.
 - go over the packet-optical super-core
 - don't go over any other PE router
 - don't go over any other ASBR (hot potato)
 - don't go over equipment from vendor X
 - don't go over nodes with limited hardware capabilities (e.g. LB)
 - don't go over equipment which is running software version x.y.z
 - de-prefer nodes which have not good hardware based latency measurements

Re-using existing protocols ? (1)

- Link colors as per RFC5305 ?
- One has to tag ***all incoming links*** (=touching N nodes) to color a specific ***node***



Re-using existing protocols ? (2)

- Prefix tags as per RFC5130 ?
 - **No bijection** between a **node** (router-ID) and some **prefix** (which carries the tags)
 - In fact those are different name-spaces
 - What about L1L2 case for Prefix leaking ?
 - How to differentiate **leaked prefixes** vs. **self-originated prefixes** ?
 - No prefix tagging mechanism for OSPF yet
 - Looking for **consistency across protocols**
 - draft-hegde-ospf-node-admin-tag-01
 - For MPLS/TE paths most implementations of Traffic Engineering Database (TED) schema support
 - **Nodes**
 - **Links**
 - But **not Prefixes**

Next Steps

- Questions ?
- Adoption as a WG item ?